In [2]:

```
import numpy as np
import pandas as pd
import scipy
import matplotlib.pyplot as plt
from pylab import rcParams
import urllib
import sklearn
from sklearn.neighbors import KNeighborsClassifier
from sklearn import neighbors
from sklearn import preprocessing
from sklearn.model_selection import train_test_split
from sklearn import metrics

np.set_printoptions(precision=4,suppress=True)
get_ipython().run_line_magic('matplotlib', 'inline')
rcParams['figure.figsize']=7,4
plt.style.use('seaborn-whitegrid')

address = r"/home/anudeep/Downloads/cars.csv"
M=pd.read_csv(address)
M.coloumns=['title','pros','cons']
X_prime=M.ix[:,(1,3,4,5)].values
y= M.ix[:,9].values

X= preprocessing.scale(X_prime)

X_train,X_test,y_train,y_test= train_test_split(X,y, test_size =.33,random_state=17)

clf=neighbors.KNeighborsClassifier()
clf.fit(X_train,y_train)
print(clf)

y_expect = y_test
y_pred = clf.predict(X_test)

print(metrics.classification_report(y_expect, y_pred))
```

```
KNeighborsClassifier(algorithm='auto', leaf_size=30, metric='minkowski',
                     metric_params=None, n_jobs=None, n_neighbors=5, p=2,
                     weights='uniform')
              precision    recall  f1-score   support

           0       0.62      1.00      0.77         5
           1       1.00      0.50      0.67         6

    accuracy                           0.73        11
   macro avg       0.81      0.75      0.72        11
weighted avg       0.83      0.73      0.71        11


/home/anudeep/anaconda3/lib/python3.7/site-packages/ipykernel_launcher.py:29: UserWarning: Pandas do
esn't allow columns to be created via a new attribute name - see https://pandas.pydata.org/pandas-do
cs/stable/indexing.html#attribute-access
/home/anudeep/anaconda3/lib/python3.7/site-packages/ipykernel_launcher.py:30: FutureWarning:
.ix is deprecated. Please use
.loc for label based indexing or
.iloc for positional indexing

See the documentation here:
http://pandas.pydata.org/pandas-docs/stable/user_guide/indexing.html#ix-indexer-is-deprecated
/home/anudeep/anaconda3/lib/python3.7/site-packages/pandas/core/indexing.py:961: FutureWarning:
.ix is deprecated. Please use
.loc for label based indexing or
.iloc for positional indexing

See the documentation here:
http://pandas.pydata.org/pandas-docs/stable/user_guide/indexing.html#ix-indexer-is-deprecated
  return getattr(section, self.name)[new_key]
/home/anudeep/anaconda3/lib/python3.7/site-packages/ipykernel_launcher.py:31: FutureWarning:
.ix is deprecated. Please use
.loc for label based indexing or
.iloc for positional indexing

See the documentation here:
http://pandas.pydata.org/pandas-docs/stable/user_guide/indexing.html#ix-indexer-is-deprecated
```

In [ ]: